Attorney Docket No.: 020945-001510US

This declaration is directed to:

As the below named inventor(s), I/we declare that:

PTO/SB/01A (10-00)

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U. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE are required to responsito a collection of information unless it displays a valid OMB control number. Under the Paperwork Reduction Act of 1995, no person

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION **USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

The attached application, or

	Application No. <u>09/882,283</u> , filed on <u>June 14, 2001</u> ,		
	as amended on (if applicable);		
I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:			
METHOD FOR ITERATIVE AND NON-ITERATIVE DATA DETECTION USING REDUCED-STATE SOFT-INPUT/SOFT-OUTPUT ALGORITHMS FOR COMPLEXITY REDUCTION			
I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;			
I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and			
All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.			
FULL NAME OF INVENTOR(S	- 2/20/01		
FULL NAME OF INVENTOR(S	09/20/01		
	- 2/20/01		
Inventor one Xiaopeng C	Chen Date: 09/20/01 Citizen of: China		
Inventor one Xiaopeng C Signature: Inventor two Keith M. Ch	Chen Date: 09/20/01 Citizen of: China		
Inventor one Xiaopeng C Signature: Inventor two Keith M. Ch Signature:	Date: 09/20/01 Citizen of: China Date:		
Inventor one Xiaopeng C Signature: Inventor two Keith M. Ch Signature: Inventor three	Chen Date: 09/20/01 Citizen of: China Date: United States		
Inventor one Xiaopeng C Signature: Inventor two Keith M. Ch Signature: Inventor three	Chen Date: 09/20/01 Citizen of: China Date: China Date: United States Date: Citizen of:		
Inventor one Xiaopeng C Signature: Inventor two Keith M. Ch Signature: Inventor three Signature: Inventor four	Chen Date: 09/20/01 Citizen of: China Date: China Date: United States Date: Citizen of:		
Inventor one	Date: 09/20/01 Citizen of: China Date: United States Date: Citizen of: United States		

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Attorney Docket No.: 020945-00151QUS

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION **USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

As the below named inventor(s), I/we declare that: This declaration is directed to: The attached application, or Application No. 09/882,283, filed on June 14, 2001. X as amended on ____ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the Invention entitled:

METHOD FOR ITERATIVE AND NON-ITERATIVE DATA DETECTION USING REDUCED-STATE SOFT-INPUT/SOFT-OUTPUT ALGORITHMS FOR COMPLEXITY REDUCTION

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filling date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and

All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR(S)	
Inventor one Xiaopeng Chen	Date:
Signature:	Citizen of: China
Inventor two Keith M. Chago	Date: 9/26/01
Signature: SAM. Clay	Citizen of: United States
Inventor three	Date:
Signature:	Citizen of:
Inventor four	Date:
Signature:	Citizen of:
Additional inventors are being named on addition	nal form(s) attached hereto.

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. PA 3170062 v1

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a Officeion of Information unless it displays a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are re 09/882,283 Application Number June 14, 2001 Filing Date Ziaopeng Chen et al. First Named Inventor Method for Iterative and Non-Iterative **Data Detection Using Reduced-State** Title Soft-Input/Soft-Output Algorithms for **AUTHORIZATION OF AGENT** Complexity Reduction **Group Art Unit** Unassigned **Examiner Name** 020945-001510US Attorney Docket Number

I hereby appoint: Place Customer ☐ Practitioners at Customer Number 20350 Number Bar Code Label here Practitioner(s) named below: Registration Number Name 27,301 Kenneth R. Allen 37,692 Richard T. Ogawa 28.572 David N. Slone as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith. Please change the correspondence address for the above-identified application to: ☐ The above-mentioned Customer Number. Practitioners at Customer Number Kenneth R. Allen Townsend and Townsend and Crew LLP Individual Name Two Embarcadero Center, 8th Floor Address Address 94111-3834 State California San Francisco City United States Country Fax (415) 576-0200 (650) 326-2400 Telephone I am the: Applicant/Inventor. Assignee of record of the entire Interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96). SIGNATURE of Applicant or Assignee of Record Name Signature NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*. forms are submitted. *Total of _

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will very depending upon the needs of the individual case. Any Comments on the amount of time you are requited to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20291. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20291. PA 3170060 v1

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Attorney Docket No. 020945-001510US

STATEMENT LINDER 37 CFR 3.73(b)			
Applicant/Patent Owner: Xisopeng Chen et al.			
Application No./Patent No.: 09/862,283 Filed/Issue Date	x June 14, 2001		
Entitled: METHOD FOR ITERATIVE AND NON-ITERATIVE DATA DETECT	TON LISTING REDUCED-STATE		
SOFT-INPUT/SOFT-OUTPUT ALGORITHMS FOR COMPLEXITY REDUCTION			
TrefishVarra Yeshnologias, Inc. a Dalawara corporation			
	ution, partnership, university, government agency, etc.)		
etates that it is:			
1. Are assigned of the entire right, title, and interest, or			
2. an assignee of an untilvided part interest			
in the patent application/patent identified above by virtue of either:			
A. 22 An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Petent and Trademark Office at Real Frame or for which a copy thereof is attached.			
OR			
B. A chain of title from the invertor(s), of the patent application/patent id shown below:	enlified above, to the current easignee as		
1. Prom: To :	·		
The document was recorded in the United States Patent and Tra			
Reel Frame or for which a copy thereof is attached	d.		
2. Fram: To:			
The document was recorded in the United States Patent and Trademark Office at			
Real Frame or for which a copy thereof is attached.			
3. From: To:			
The document was recorded in the United States Patent and Trademark Office at Real, or for which a copy thereof is attached.			
Additional documents in the chain of title are fisted on a supplemental sheet.			
Copies of essignments or other documents in the chain of title are stacked. [MOTE: A separate copy (i.e., the original essignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. Sea MPEP 302.8]			
The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the essignee.			
10/2261 Th	lomas Cache		
Defe	Signeture		
	Thomas Carter		
	Typed or printed name		
	Provident and CEO		
	Title		

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Any communits on the empount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and
Tradement Office, Washington, DC 20281. DO NOT SEND PRES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Australians
Commissioner for Patents, Washington, DC 20281.